
PRACTICAL EXPERIENCE WITH BIOLOGICS AND OIT

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**What are you doing to me??
Now I understand**



In The Beginning.....

- Initial use of biologics, omalizumab, based on studies out of Stanford
- Some offices would use omalizumab for 3 months prior to starting OIT. Cash pay. Limited accessibility.
- Add on when pt having trouble, recurrent reactions
- Could use other diagnosis, asthma, to get approval

Present Day

- Omalizumab as stand-alone treatment
 - Pts with multiple allergies
 - Looking for protection but do not want to eat the food
 - Eating anxiety
 - HX of multiple reactions +/- epi

Practical Aspects of Omalizumab With OIT

- Get approval prior to initiating OIT
- Make sure to get lab work prior to starting OIT
- Omalizumab will skew lab results down the road, eg, following serum sIgE levels to decide dosing frequency
- Get skin testing prior to starting Omalizumab. Less of an issue that serum IgE levels (IgE stays bound to high affinity receptor on mast cells for weeks/months)

Practical Aspects of Omalizumab 2

- Use as an adjunct on highly reactive pts
- Consider discontinuing after reaching target OIT goal
- Will stay in system for up to a year, 6 months for sure, continue dosing to cement tolerance
- Do not adjust protocol if on omalizumab, don't do RUSH

Practical Aspects of Omalizumab 3

- If getting omalizumab authorized for asthma, CSU and pt has food allergies, consider using food allergy dosing scale as this is a higher dose of omalizumab and will cover asthma and CSU
- If pt already on OIT and omalizumab is to be added, may need to use asthma, CSU as the diagnosis to get approved.

Practical Application of Omalizumab

- BK, 10 yr old male
- Allergic to egg, milk, TN, PN
- Eating anxiety/fear
- Undergoes milk OIT 1/2023, multiple reactions, fear of epi, discord between mom and dad on use of epi
- Completes 10/2023. Starts egg OIT 1/2024

Practical Application of Oma 2

- Continues to be afraid of dosing, fear of reactions.
- Omalizumab ordered 5/2024 and denied, on OIT
- Appeal letter written for other food allergies and eating anxiety
- Approved 7/9/2024, first dose 7/11/2024
- A different kid, calm, no anxiety, graduated egg and started PN/Sesame OIT

Practical applications of Dupilumab

- I have not seen decrease in reactions when on OIT
- Helpful to keep AD under control to help with OIT
- Keeping asthma under control to help with OIT
- Start prior to OIT to prevent EoE???? No
- Prevent OIT from working?? No



Omalizumab (Xolair)

- $\frac{1}{2}$ life 26 days
- Food allergy: 1 yr and up
- Asthma: 6 yrs and up
- CSU: 12 yrs and up
- CRSw/NP: 18 yrs and up

Dupilumab (Dupixent)

- 1/2 life ??? Possibly 17-20 days; Takes 3 months to clear
- AD: 6 months and up
- Asthma: 6 yrs and up
- EoE: 1 yr and up
- CSU & CRSw/NP: 12 yrs and up
- PN & COPD: 18 yrs/adult

Mepolizumab (Nucala)

- $\frac{1}{2}$ life 16-22 days
- Asthma: 6 yrs and up
- HES: 12 yrs and up
- CRSw/NP: 18 yrs and up
- EGPA & COPD: Adult

Benralizumab (Fasenra)

- $\frac{1}{2}$ life 15.5 days
- Asthma: 6 yrs and up
- EGPA: Adult

Tezepelumab (Tezspire)

- $1/2$ life 26 days
- Asthma: 12 yrs and up
- Other indications coming

Nemolizumab (Nemluvio)

- $\frac{1}{2}$ life 19 days
- Blocks IL-31 signaling
- AD: 12 yrs and up
- PN: 18 yrs and up

Lebrikizumab (Ebglyss)

- $t_{1/2}$ life 24.5 days
- IL-13 antagonist
- AD: 12 yrs and up (40 kg and up)

Tralokinumab (Adbry)

- $1/2$ life 3 weeks
- IL-13 antagonist
- AD: 12 yrs and up